•• REMARKS/ARGUMENTS ••

The Official Action of January 19, 2006 has been thoroughly studied. Accordingly, the following remarks are believed to be sufficient to place the application into condition for allowance.

By the present amendment, claim 1 has been corrected in the manner requested by the Examiner on page 15 of the Office Action.

Claims 1-12, 14, 16 and 18-32 are pending in this application.

On page 2 of the Office Action the Examiner has objected to the specification under 35 U.S.C. §112, first paragraph.

Under this objection the Examiner as taken the position that applicant has failed "to provide an adequate written description of the invention and as failing to adequately teach how to make and/or use the invention, i.e. failing to provide an enabling disclosure."

Although it seems that the Examiner is unconvinced that applicant's invention operates in the manner described in the specification; nevertheless, it is submitted that applicant has provided a detailed description as to how to practice the invention and has provided in the specification working examples which were conducted by a reputable research facility in Research Triangle Park in North Carolina.

The detailed procedure of the testing that was conducted in Research Triangle Park is provided in the specification. This disclosure, it is submitted, provides one skilled in the art with

sufficient information to repeat applicant's testing procedure.

Moreover, from the testing it was found that: 1) the reactor produced a sufficient amount of heat many hours (sixteen) during which interval of time no reactants were feed into the reactor and only a continuous flow of ambient air flowed continuously through the reactor; and 2) all moisture in the ambient air disappeared and therefore, absent any reactants, became dissociated into hydrogen and oxygen by the rapid heating (such dissociation caused by heating is well known as shown by Exhibit A attached hereto).

What applicant has determined, and proven to the acceptance of the scientific community, is that when heat energy is injected rapidly into a system containing chemical species such as water, the activities of particles (molecules, atoms or nuclei, and electrons) are increased: the particles are accelerated; frequencies and amplitudes of electron and atomic vibrations in a molecule increase; average kinetic energy of the particles increases; atomic bonds are ruptured; and electrons are caused to leave their orbits. This proven outcome has been referred to as Lin's Theory of Flux.

Based upon the research testing, the known fact that water can be dissociated into hydrogen and oxygen by high temperatures, the fact that the dissociated hydrogen and oxygen did not re-convert back into water, and the principles of Lin's Theory of Flux, the present inventor, and those skilled in the art, has reasonable concluded that the sustained heating witnessed in the research testing at Research Triangle Park had to have been associated with activities at the sub-atomic level. Calculations provided in the specification confirm that the only possibility of

generating the heating that was witnessed was due to the formation of protons and free electrons.

The present invention, as set forth in the claims, merely involves collecting the free or freed electrons for use in developing electrical potential.

It is noted that the present inventor has been invited as a frequent speaker at both national and international conferences worldwide on nuclear and alternative energies. Accordingly, the scientific community has accepted Lin's Theory of Flux together with how it is applied in the instant invention to produce heat and electrical energy.

In the Office Action the Examiner has made repeated reference to the fact that applicant has not conducted actual "nuclear measurements" not provided such evidence on the record.

The Examiner's position overlooks that, in addition to direct evidence, science often relies upon inference, which applicant has reasonable done in the present situation.

On page 12 of the Office Action the Examiner states that:

> ... the examiner has presented evidence showing that in cold fusion systems, the claims of excess heat (as well as of other nuclear reaction products), are not reproducible or even obtainable. It consequently must follow that the claims of excess heat or nuclear reactions are not reproducible of even obtainable with applicant's invention.

The Examiner's "evidence" is not at all related or similar to applicant's invention or discovery or working examples.

The Examiner's "evidence" relies upon "electrolytes," "electrochemical cell systems," "palladium cathodes," "heavy water," etc. Such "evidence is not at all applicable or comparable to applicant's invention.

The Examiner has referred to the fact that the experiments and results reported by Fleichmann and Pons were not achievable and thus not verified by others.

Fleichmann and Pons announced in 1998 that that they had achieved nuclear fusion at room temperature by electrolyzing heavy water in a cell containing a palladium cathode while monitoring levels of tritium and neutron-capture gamma. In this connection, the Examiner supplies many reference papers to counter Fleichmann and Pons. The reference papers show that many scientists have conducted identical tests thereafter, and the results show that no activity was detected that would indicate sustained fusion reaction has take place.

Fleichmann and Pons involves the use a batch process. If the heat production is excessive (from nuclear fusion), the heavy water in the cell will evaporate. Therefore, from common sense, the heat production from the process is very small. So even if there is heat production, it is insignificant and inconsequential, and not attributed to nuclear reactions.

The cold fusion mentioned involves an electro-chemical process. Fleichmann and Pons flails to explain the mechanism of how the reactions happened. Moreover, they could not be substantiated by the third parties testing results. The heat released is small according to the experimental results.

The manner of producing continuously excess heat according to the present invention is not based on inoperative concept of cold fusion as set forth by Fleischmann and Pons.

On page 13 of the Office Action the Examiner has rejected claims 1-9, 21-26 and 28-30 under 35 U.S.C. §101 as being inoperative and lacking utility.

This rejection, as noted, is based upon the Examiner's position set forth in the objection to the specification.

On page 14 of the Office Action the Examiner has rejected claims 1-9, 21-26 and 28-30 under 35 U.S.C. §112, first paragraph.

This rejection, as noted, is based upon the Examiner's position set forth in the objection to the specification.

The undersigned, a former patent Examiner is fully aware of the PTO's position on "cold fusion" and understands the Examiner's position.

However, the Examiner's position on the record is not believed to establish a proper basis for rejecting applicant's claimed invention.

In this regard, the PTO's established position on cold fusion which is based upon Fleichmann and Pons and others is not at all similar or applicable to applicant's invention.

Moreover, applicant has demonstrated by experimental testing that the process of the present invention produces sustained heat while water molecules disappear.

It appears that the Examiner's positioned is biased and as such applicant's invention is not being given fair consideration. In such an instance, applicant's application for a letters patent is unduly prejudiced.

The Examiner is respectfully request to examine the present application on the merits so that applicant's right to seek patent protection is not prejudiced.

On page 15 of the Office Action the Examiner has rejected claims 5, 9, 21, 22 and 28

under 35 U.S.C. §112, second paragraph.

Under this rejection, the Examiner has taken the position that the term "rapid heating" is indefinite.

Applicant's submits that the claims recite:

> d) using the means for heating to heat the gas stream at a rapid rate sufficient to:
>
> i) produce hydrogen atoms from the water;
>
> ii) transform the produced hydrogen atoms into protons and free electrons; and
>
> iii) induce a sustained chain reaction, including nuclear reactions

As can be seen the recited "rapid heating" is "sufficient to" produce results that someone practicing applicant's claimed invention can readily verify without undue experimentation (particularly in light of the disclosed working examples).

Accordingly, it is submitted that the claims satisfy the requirements of 35 U.S.C. §112, second paragraph.

Based upon the above, and particular in view of the experimental data presented in applicant's specification and the disclosure of the experimental procedures, it is submitted that applicants' application for patent meets the requirements of 35 U.S.C. §101 and §112.

It is, therefore, submitted that any reliance upon prior art would be improper inasmuch as the prior art does not remotely anticipate, teach, suggest or render obvious the present invention.

It is submitted that the claims, as now amended, and the discussion contained herein clearly show that the claimed invention is novel and neither anticipated nor obvious over the teachings of

the prior art and the outstanding rejection of the claims should hence be withdrawn.

Therefore, reconsideration and withdrawal of the outstanding rejection of the claims and an early allowance of the claims is believed to be in order.

It is believed that the above represents a complete response to the Official Action and reconsideration is requested.

If upon consideration of the above, the Examiner should feel that there remains outstanding issues in the present application that could be resolved, the Examiner is invited to contact applicants' patent counsel at the telephone number given below to discuss such issues.

To the extent necessary, a petition for an extension of time under 37 CFR §1.136 is hereby made. Please charge the fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 12-2136 and please credit any excess fees to such deposit account.

Respectfully submitted,

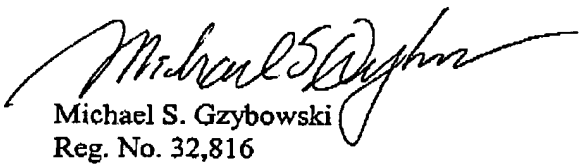

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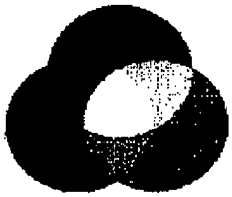
EXHIBIT A

Ask A Scientist©

Chemistry Archive



NEWTON Ask A Scientist

Water without Electrolysis

name Josh
status student
age 17

Question - Is there a way to break down water to hydrogen and oxygen using heat or pressure?

Years ago, I read that at very high temperature (I cannot recall how high, but it's several hundred degrees) water will spontaneously dissociate into hydrogen and oxygen. I found this tidbit while researching a high-school paper on using hydrogen as a clean-burning fuel. Of course, at such a high temperature, the containment pressure would be high also. Yet, thermal dissociation would afford another means of harnessing nuclear or solar energy such that perhaps fossil fuels would not be needed for transportation use.

Tim Spry

Extreme heat can cause dissociation of chemical bonds. For water this would result in atomic hydrogen and oxygen rather than the molecular forms that are stable at room temperature and pressure. When allowed to cool the bonds would re-form and you would end up with water again.

Extreme pressures would not cause breaking of the chemical bonds in water. It would increase the intermolecular interactions so the crystalline form (phase) of the ice might change.

Low pressures will not break chemical bonds but may speed up evaporation of the water.

Bradburn
